



Solution Overview

Avoka SmartForm Factory
For the Adobe Digital Enterprise Platform

A Digital Self-Service Enablement Solution

Users are increasingly demanding engaging, responsive, online services that allow them to transact anytime, from any location and on any device

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Executive Summary

We use the internet for everything. Over the last five years, the ways we communicate, learn about products, and make purchasing decisions have been fundamentally transformed by the internet. We also increasingly transact on the internet.

But there is one class of transaction that hasn't made it to the internet. It's the more complicated transactions – a life insurance application, new home loan, hospital admissions form, government grant application, insurance claim, and most others. These transactions are largely paper today, even though everyone knows that paper is expensive, error prone, inconvenient and time-consuming for all.

But did you know that *research*¹ reveals that users increasingly prefer to be able to help themselves online – the most cost effective and efficient customer channel – without engaging your customer support staff. It is clear that, in order to attract and retain customers, organizations have to implement Digital Self-Service capabilities that enable users to complete complex tasks online - and on any device.

Avoka SmartForm Factory is a Digital Self-Service Enablement Solution for the Adobe Digital Enterprise Platform (ADEP). SmartForm Factory allows users with no programming or design skills to quickly replace paper forms with interactive and intelligent online SmartForm Apps that enable users to complete complex transactions online, without errors or assistance, on any device.

- **SmartForm Factory V3 – Build once, deploy digital self services everywhere:** Mobile is a whole new world, and everyone is scrambling to get up to speed. There is a continuous stream of new devices, multiple screen sizes, and new interaction models that focus on touch rather than a mouse and keyboard. With SmartForm Factory V3 a single design creates an optimized SmartForm App, for desktop, tablet and mobile devices including iPhone, iPad, Android and Blackberry mobile devices. SmartForm Factory V3 detects the device in use, and appropriately renders the right SmartForm App for the device, ensuring that all business rules and features work appropriately.
- **SmartForm Factory V3 – Digital Self-Service Enablement for Web Experience Management:** The web is becoming the channel of choice and users increasingly expect to engage online. Our Digital Self-Service Enablement for Adobe's WEM Solution enables organizations to quickly and easily create and deploy complex transactions to their CQ5 website. Content author's simply use our drag and drop tools to add SmartForm Apps to pages with a few mouse clicks, without having to write any HTML at all.

SmartForm Factory V3 enables organizational agility by empowering business teams to drive rapid Create → Deploy → Transact → Manage cycles to make new digital services available in days, not months. With SmartForm Factory your products and services get to market sooner and the benefits of Digital Self-Service – users completing complex transactions online and on any device – can be realized sooner.

¹ North American Technographics® Customer Experience Online Survey, <http://www.forrester.com/ER/Research/Survey/Excerpt/1,10198,751,00.html>

eCommerce Transactions – Pervasive but Limited Scope

Over the last five years, the ways we communicate, learn about products, and make purchasing decisions have been fundamentally transformed by the internet. Now as much of our information comes from the internet and the internet becomes increasingly mobile, we spend more and more of our time online while we're on the move. We also increasingly transact on the internet. According to comScore, last year was a banner year for e-commerce with U.S. e-retail sales totaling \$142.5 billion – a 9.8% increase in sales despite the recession.

If you think about it, purchasing a product on the internet – whether it's a book, a flight or a movie – is blindingly simple. You spend most of the time researching the product and then once you've made your selection you simply click "check-out" button, provide one or two additional details such as quantity, delivery address and credit card details, and you're done. Fast – Easy – Simple.

Complex Transactions– Pervasive but Paper-Based

But there is one class of business transaction that hasn't made it to the internet. It's the more complicated transactions - such as a life insurance application, a new home loan, a hospital admissions form, a government grant application, an insurance claim, and just about any other complex business interaction - that are still paper today.

The Benefits of a Paper Interaction Model

These types of transactions are still usually performed by filling in a paper form with a pen because paper supports many complex interaction patterns, including:

You can write on it	Wet signatures are still the de-facto way of asserting the authenticity of an individual and are used for non-repudiation
Attachments are easy	It's easy to staple copies of supporting documents to a paper form, such as a doctor's letter or a copy of a birth certificate
Taking a break is okay	It's easy to partially fill out a form and then finish it later
Sharing is easy	It's easy to partially fill out a form and then give it to someone else to complete. Or for a company representative or agent and the customer to fill out the form together
Storage is easy	Paper is easy to file. (Although it's equally easy to misfile)

Paper's Economic Costs

From the business perspective making print-and-fill or fill-and-print forms available over the web is extremely expensive. Studies show the paper submissions are about two-orders-of-magnitude more expensive than electronic submissions.

Cost of Paper Handling	Cost range from \$5-\$20 per form to print, store, distribute, mail, & process Each collaboration cycle requires a copying cycle.
Cost of Manual Data Entry	US organizations spend \$15-20B/yr on manual data entry Research shows that 35%– 45% of forms have errors or missing information Correcting missing information and errors add a tax (\$2 - \$10) to every form
Environmental Sustainability	Cutting US office paper by 10% reduces greenhouse gas emissions by 1.45M metric tons Equivalent to taking 280,000 cars off the road for a year
Tracking and Auditing	Despite the best filing systems documents are regularly lost About 3% of paper documents are filed incorrectly and many are eventually lost Estimates show it costs about \$120 to recreate each lost document

Paper's Brand Impact

From the customer and overall brand perspective, you couldn't provide a more 19th century user experience, at a time when research shows that users increasingly prefer the convenience of online self-service. With the transition to Smart Phone and Tablet devices the days of making customers download a PDF, print it, complete it by hand, mail or fax it back for processing and then wait days (often weeks) for an answer are numbered. Customers will take their business to organizations that serve them the way they want to be served, with the convenience and immediacy of the digital channel.

Digital Self-Service

Everyone knows that paper transactions are expensive, error prone, inconvenient and time-consuming for all. But did you know that *research reveals that users increasingly prefer to be able to help themselves online* – the most cost effective and efficient customer channel – without engaging with your customer service staff. According to a survey of US online consumers by Forrester Research²:

- **72% prefer to use the Web** to get information, rather than contact via telephone or email
- **36% of all consumers surveyed "strongly prefer"** online self service
- While **46% of 18-29** and **42% of 30-42 year olds "strongly prefer"** online self service

The way that an organization interacts with customers directly affects the way customers perceive that organization. According to the same Forrester Research customers that have a positive experience are:

- **Three times more likely to purchase** than customers with a neutral or negative experience
- **Four times more likely to recommend** the company or renew an existing relationship
- **Five times more likely to state that they are satisfied** with the outcome of the

People Who Use These



Won't Transact With This

interaction

It would be unthinkable if the process to obtain an App for your tablet or SmartPhone was to download, print, fill and mail a paper form and then wait days/weeks for it to arrive in the mail. Why should Insurance or a Personal Loan or a Government Licence be any different when it doesn't need to be?

² North American Technographics® Customer Experience Online Survey, <http://www.forrester.com/ER/Research/Survey/Excerpt/1,10198,751,00.html>

It is clear that, in order to attract and retain customers, organizations have to implement Digital Self-Service capabilities that enable users to complete complex tasks online - and on any device.

Capitalizing on the Emerging Trend

Organizations have to fundamentally reassess their online service capability. Only those organizations willing to adapt their strategies to engage with and meet this emerging trend will be in a position to capitalize on this opportunity. Digital Self-Services enables organizations to thrive in a world of constant disruption and extremely high customer expectations.

SmartForm Factory – Digital Self-Service Enablement

Avoka SmartForm Factory is a Digital Self-Service Enablement Solution for the Adobe Digital Enterprise Platform (ADEP). SmartForm Factory allows users with no programming or design skills to quickly create, deploy and manage cross-device SmartForm Apps. It is also a powerful customer-interaction and system integration hub between form transactions and back-end business processes.

SmartForm Factory empowers business teams to drive rapid Create → Deploy → Transact → Manage cycles to make new digital services available in days, not months. With SmartForm Factory your products and services get to market sooner and the benefits of Digital Self-Service – users completing complex transactions online and across any device – can be realized sooner.

SmartForm Apps

SmartForm Apps are small self-contained data capture applications that contain presentation logic, business rules, can use web services, and their submitted data can integrate with back

office processes. The client-side interactivity and intelligence of SmartForm Apps give the user an easy-to-use, intuitive, and responsive customer experience that enables them to complete complex transactions online without errors or assistance and across any device.

With Avoka's SmartForm Factory a single design can create an optimized SmartForm App for desktop or laptop computers, Tablets and Smart Phones where forms are appropriately rendered

for the user's particular device, ensuring that all business rules and features work appropriately.



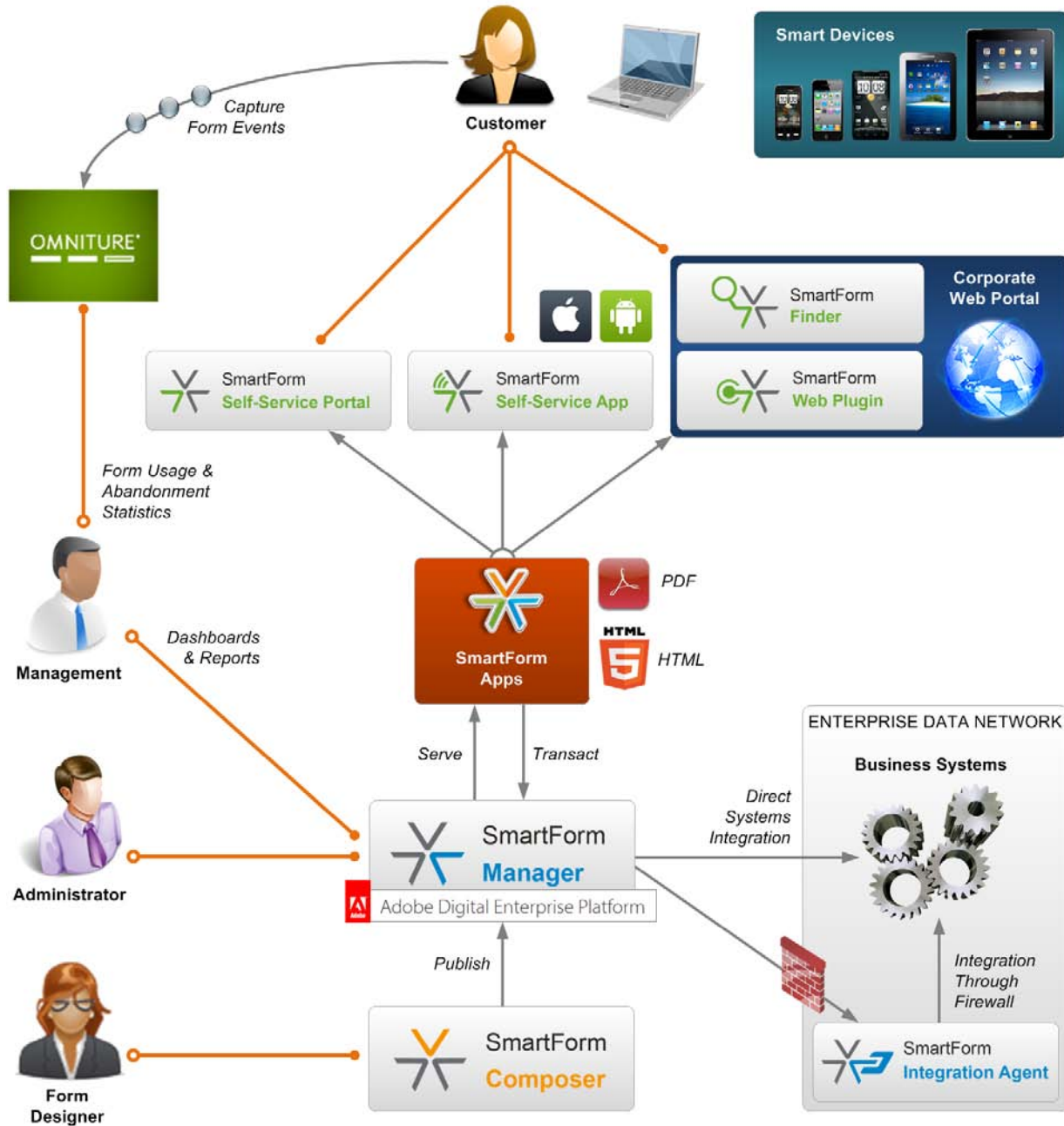
Paper Becomes SmartForm Apps

- **SmartForm Apps**
 - Business Logic & rules
 - Data Validation
 - Security
 - Performance Management
 - Integration with Backend Systems
 - Business Intelligence
 - Payment solutions
 - Signature requirements
 - . . .

Avoka's SmartForm Factory is for organizations have **dozens, hundreds or thousands** of paper forms that need to become SmartForm Apps

SmartForm Factory Modules

SmartForm Factory extends the Adobe Digital Enterprise Platform. It is comprised of the following modules.



SmartForm Composer: Is the SmartForm App authoring environment within SmartForm Factory. SmartForm Composer provides a simple but very powerful development model, so that anyone can create interactive and intelligent SmartForm Apps that enable customers to transact online. You simply select one of our pre-defined Smart Templates; add your components and business rules and you'll end up with a SmartForm App that looks great, no matter what your design

skills. Best of all a single design creates an optimized SmartForm App for desktop as well as iPhone, iPad, Android and Blackberry mobile devices.

SmartForm Manager: Is the runtime deployment and management environment for SmartForm Apps and serves as a powerful customer-interaction and system integration hub between form transactions and back-end business processes.

- Its integrated change control and release management capability allows authorized users to deploy SmartForm Apps with a 'click' and make them immediately accessible to users to transact online through websites, portals, intranets and mobile devices.
- It detects the device in use and delivers an optimized SmartForm App for desktop, tablet and mobile devices including iPhone, iPad, Android and Blackberry mobile devices.
- It provides hundreds of powerful management, administration and integration features to provide an easy to use yet versatile environment.
- It's designed to be used either in the cloud (or private cloud) or as an on-premise solution. When deployed as a cloud service it can be configured as a multi-tenanted service making it ideal for very large corporations or Government shared-service offerings.

SmartForm Self Service Modules: Our Self-Service modules make it easy for users to locate, use, manage, and track their form submissions so that they can transact completely online. We offer several self-service modules that are designed to be easily integrated into existing Web sites, intranets or simply run as a stand-alone application. These include:

- **SmartForm Web Plug-in:** Enables people to incorporate SmartForm Apps into their website with the minimum amount of effort. By simply adding a few HTML tags to a web page you can enable sophisticated online transactions. For Adobe Web Experience Management (WEM) the Smart Form Web Plug-in provides content authors with drag and drop tools to add SmartForm Apps to pages with a few mouse clicks, without having to write any HTML at all.
- **SmartForm Finder:** This module provides configurable Wizard-style guides to help users easily locate SmartForm Apps using a simple 'question and answer' guided interface. It can be embedded into existing Web pages and linked to any online resource.
- **SmartForm Self-Service Portal:** Enables custom or stand-alone self-service Web applications to be created easily. Provides users the ability to manage profiles, search and locate forms, view submission history and monitor processing on submitted application. Designed to be integrated with customer single sign-on systems or integrated with existing enterprise portals.
- **SmartForm Self-Service App:** A customisable self-service app designed to run on iPads or Android Tablet devices. Enable users to search and locate SmartForms - complete them online or offline.

SmartForm Integration Agent: A server side module which enables the delivery of form transaction data and system integration between SmartForm Manager and distributed back office systems.

SmartForm Factory Benefits

There is tremendous value to be gained by moving from paper forms to digital self-service. The question is: what do we need to do differently in order to enable digital self-service?

- **Business Agility:** Most organizations build their web sites with content management systems. The IT department installs the system but business users create content with simple-to-use web-based tools. A form is a mini-application, but in order to be successful, it must be treated more like content. It must be easy and simple (and safe) for business users to create, modify, approve and deploy a SmartForm App. With SmartForm Factory IT is still required to install, manage, back up and ensure quality-of-service. But it's the business teams that create, deploy and manage SmartForm Apps.
- **Productivity:** Many organizations have tens, hundreds or even thousands of paper forms to convert. Traditional software development methods are not well suited for the rapid development and deployment of the smaller SmartForm Apps. The Software Development Life Cycle (SDLC) for most large organizations is in the order of 9 to 24 months, and the costs associated with this are significant. This causes two significant problems for organizations. Firstly, they can't rapidly develop and commission applications, because it simply takes too long. Secondly, they can't develop tens or hundreds of new applications, because it is simply too expensive. The SmartForm Factory approach gives organizations a virtual production line, with pre-built templates and tools to help them churn out forms quickly, consistently, affordably and reliably. It enables authorized users to deploy SmartForm Apps with a 'click' and make them immediately accessible to users.



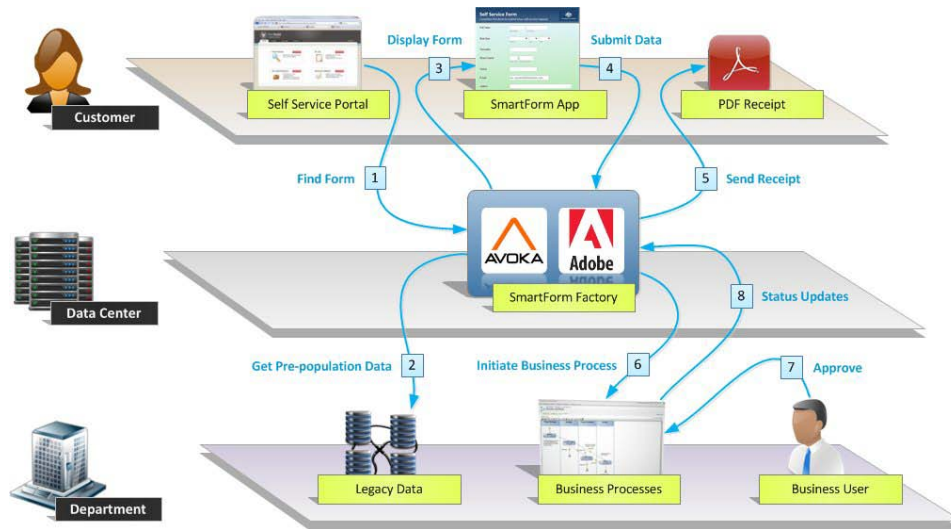
Design Once and Run Everywhere: – Mobile is a whole new world, and everyone is scrambling to get up to speed. There is a continuum of new devices, multiple screen sizes, and new interaction models that focus on touch rather than a mouse and keyboard. With SmartForm Factory a single design can create an optimized SmartForm App, for desktop or laptop computers, Tablets and Smart Phones, which are appropriately rendered for the user's particular device, ensuring that all business rules and features work appropriately.

Enhancing the Brand through Exceptional Experiences:

Customers who have a better online experience are more likely to be loyal brand advocates and SmartForm Factory makes it easy to provide a much better, simpler and faster user experience for your customers. It makes it easy for customers to locate and use SmartForm Apps and track their status after their submission. The use of advanced features such as in-line help, hide-show logic, automatic validation, and pre-population makes the job of filling more complex forms much easier. Enabling offline form filling makes the experience makes more convenient.

Supporting the Needed Interaction Patterns: SmartForm Factory allows you to support the critical interaction patterns – attachments, payments, signatures (Digital Signatures, e Signatures, Wet Signatures) submission receipts, archival hardcopy, etc. – provided by paper today.

SmartForm Factory High-Level Workflow



1. User locates services using one of several search or SmartForm App finding tools
2. Form is optionally pre-populated - several alternatives can be used including using user profile data or custom lookups. Normally no programming is required to configure pre-population.
3. User completes form. If the PDF SmartForm App has been 'Reader Extended' or the customer is using the SmartForm Self-Service App, the form can be saved off-line
4. User submits completed SmartForm App back to SmartForm Manager. The XML data is stored temporarily along with any additional information while the submission processing is completed. Options during the submission process provided by SmartForm Manager include:
 - a. **Payment processing.** Credit card payment functionality can be processed during the submission. Integration with several payment services is available.
 - b. **Attachment handling.** Optional documents can be attached as part of the submission process. These are automatically virus scanned as part of the submission payload.
 - c. **Click thru signatures.** This enables users to view and then accept a certified read-only version of their submitted form during the submission processes. A server based digital certificate can then be applied to sign the submitted document.
5. Once the submission is accepted the user is guided to a "thank you" or "confirmation" landing page where they can view and download a read only receipt of their submission
6. SmartForm Manager delivers the submission payload to the backend business process. This can be as simple as initiating an ADEP workflow (business process) but can also extend to using Web Services to push the data to legacy systems in another location. SmartForm Manager acts as a hub - enabling every SmartForm App to be associated with different back end processes. No matter what the back end workflow is there are normally key "milestone" steps in the process where the applicant can monitor progress
7. SmartForm Manager provides API's to enable back end business processes to report on the progress. Users can track this via the self-service portal.

SmartForm Factory Feature Overview

Create	Deploy	Transact	Manage
SmartForm Composer	--- SmartForm Manager and SmartForm Self Service Modules ---		
<p>Enable business teams to create powerful SmartForm Apps that enable customers to transact online on any device</p> <ul style="list-style-type: none"> - An easy and intuitive way for business users to build powerful SmartForm Apps— supports Adobe PDF (XFA) and native HTML forms – that are sophisticated, elegant, reliable and consistent. - A single design creates an optimized SmartForm App for Desktop, tablet and mobile devices. Supports iPhone, iPad, Android and Blackberry mobile devices. - Sophisticated form styling, including wizard style forms, collapsible sections, auto numbering & hundreds more powerful features - Rapid form development for business teams without needing programming skills. - Powerful data dictionary can integrate with enterprise systems. - Built in multi-language support including automatic translations. 	<p>Quickly deploy SmartForm Apps through websites, portals, intranets and the Mobile SmartForm Self-Service App</p> <ul style="list-style-type: none"> - Deploy SmartForm Apps with a ‘click’ and make them immediately accessible to users to transact online - Integrated change control and release management – providing independence from IT release cycles - Customisable release and approval processes (ADEP Process Manager) - Schedule the automated release of SmartForms for a future date & time - Provide capabilities for pre-population, submission, payments and upload of supporting documents - Manage simple and complex and digital self-service requirements through a single solution - Automatically creates landing pages to describe the form’s requirements and ensure forms are catalogued by search engines and are discoverable by users 	<p>Customers can self-serve online on any device with a full range of capabilities including pre-fill, save, submit and pay capabilities</p> <ul style="list-style-type: none"> - Securely submit information directly to backend systems without the need for re-keying or manual intervention - Delivers an optimized SmartForm App for desktop computers, tablets and Smart Phones. - Enables user to work offline and automatically synchronizes when there is a network connection - Multiple prebuilt self-service capabilities including integration with Enterprise Web sites or Portals to simple stand-alone systems. - Submission management – enables form submissions to direct the next step in the form transaction workflow, such as attachments, payments or signatures, support saving drafts online - Submission tracking – provides a history of submissions, receipts, and status updates 	<p>Control user access, submissions, performance and versions of the deployed SmartForm Apps</p> <ul style="list-style-type: none"> - Built in Multi-tenanted support enables individual departments to manage their own Forms. - Multiple self-service portals supports customers, partners, call center staff, employees, offline workers - Extensive utilisation statistics and performance metrics - Designed for high volume transactions – built in quality of service & intelligent load management - Configurable meta-data schemas support a wide variety of classification schemes. - SmartForm Integration Agent supports distribution & integration of transaction data to a wide range of systems.

Conclusion

Avoka SmartForm Factory is a Digital Self-Service Enablement Solution for the Adobe Digital Enterprise Platform (ADEP). SmartForm Factory allows users with no programming or design skills to quickly replace paper forms with interactive and intelligent online SmartForm Apps that enables users to complete complex transactions online without errors or assistance and across any device.

SmartForm Factory enables organizational agility by empowering business teams to drive rapid Create → Deploy → Transact → Manage cycles to make new digital services available in days, not months. With SmartForm Factory your products and services get to market sooner and the benefits of Digital Self-Service – users completing complex transactions online and across any device – can be realized sooner.

If you want an enterprise capability to:

- Allow customers to transact online on any device
- Remove the rework, errors and cost of paper form processing
- Ensure a consistent multi-channel experience when customers engage online, on mobile, by phone or in-person
- Empower business users to do all this outside of IT release cycles, but with the support of IT

...request a SmartForm Factory *demo today* info@avoka.com

About Avoka

Avoka is a leader in helping organizations to attract and retain customers by moving complex, paper-based transactions – a life insurance application, a home loan, a hospital admissions form, a government grant application, or an insurance claim – to online digital self-services that give customers the convenience of transacting anytime, from any location and using any device.

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